Teri Kestner

CI 445

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Action Plan

**Information Literacy in Math, Science, and Social Studies**

**Need**: I have taught special education in the same high school for the past 8 years. Next year I will be moving to the 7th/8th grade special education classroom. In our high school, the departments are not very cohesive; they don’t collaborate together. Our current librarian also has not promoted information literacy to our building. She is retiring the end of the 2012-2013 school year. Hopefully with a new JH/HS librarian coming in, she will promote information literacy to both buildings. Also, I have heard great things about the junior high building (5th-8th) in that they collaborate together and it is a positive atmosphere to work. I’m looking forward to the change!

Since I have not actually taught in the junior high yet, I’m not for sure how much information literacy is addressed in the math, science, and social studies classrooms. I am basing my action plan on what happens in the high school, but I will be presenting my action plan to the junior high teachers. The principal requires all junior high teachers to present at one or more of the weekly staff meetings. I wanted a plan that could be workable for me to use in the future. If an opportunity arises, I will be glad to share my action plan with the high school teachers as well. I am hoping to work more closely with the new librarian. She seems to be more willing to collaborate with colleagues. I would like to share the current information I am learning in my Library Science classes (she earned her degree 8+ years ago).

**Definition of Information Literacy:** I have chosen to use the definition from the American Library Association (ALA): “Information literacy is a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (www.ala.org) “Information literacy forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning. An information literate individual is able to:

* Determine the extent of information needed
* Access the needed information effectively and efficiently
* Evaluate information and its sources critically
* Incorporate selected information into one’s knowledge base
* Use information effectively to accomplish a specific purpose
* Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally” (www.ala.org)

**Definition of Big6™ Skills:** In one of the sessions, I will present on the Big6™ Skills. I believe, if both the junior high and high school use this research model, then all students will benefit and all teachers will be on the same page when they assign research projects. This will help bring consistency across the board. The students will know what to expect from all teachers.

“The Big6™ is a process model of how people of all ages solve an information problem. From practice and study, we found that successful information problem-solving encompasses six stages with two sub-stages under each:

*1. Task Definition*

1.1 Define the information problem

1.2 Identify information needed

*2. Information Seeking Strategies*

2.1 Determine all possible sources

2.2 Select the best sources

*3. Location and Access*

3.1 Locate sources (intellectually and physically)

3.2 Find information within sources

*4. Use of Information*

4.1 Engage (e.g., read, hear, view, touch)

4.2 Extract relevant information

*5. Synthesis*

5.1 Organize from multiple sources

5.2 Present the information

*6. Evaluation*

6.1 Judge the product (effectiveness)

6.2 Judge the process (efficiency)” (www.big6.com)

**I-SAIL Standards:** All 5 I-SAIL Standards will be addressed. The correlating Common Core State Standards in Reading, Writing, Math, and College and Career Readiness will also be addressed (I didn’t list them as they vary by grade).

*Standard 1:* Access information efficiently and effectively to inquire, think critically, and gain knowledge.

*Standard 2:* Evaluate information critically and competently.

*Standard 3:* Use information accurately, creatively, and ethically to share knowledge and to participate collaboratively and productively as a member of a democratic society.

*Standard 4:* Appreciate literature and other creative expressions of thoughts and ideas and pursue knowledge related to personal interests and aesthetic growth.

*Standard 5:* Understand and practice Internet safety when using any electronic media for educational, social, or recreational purposes. ([www.islma.org](http://www.islma.org))

**Implementation of Action Plan:** As I said earlier, I will present this information to the junior high teachers at our weekly staff meetings. If an opportunity arises, I will share the information on incorporating information literacy in math, science, and social studies classrooms with the high school teachers. Since I feel it would be beneficial for all teachers (5th-12th) to use the Big6™ Skills, then I will have to attend one (or more) of the high school staff meetings to instruct them on the research model and then find time to follow-up and make sure they are using the model in their classrooms and to answer any questions they might have. Ideally I would find time to visit all classrooms (5th-12th) to model the process to the teachers and students. Since I am a classroom teacher, I don’t know that this is feasible. I could enlist the help of the librarian, however. I could get the ball rolling and she could take over and ensure the teachers are following through.

I have decided to break my plan into 4 parts: Big6™ model (which has already been discussed), Information Literacy in the Math Classroom, Information Literacy in the Science Classroom, and Information Literacy in the Social Studies Classroom. When I present the information on the Big6™, I want all staff members present. When I present on the other 3 parts, I would like only those teachers that teach that subject come to the presentation. This will make me feel more comfortable (I’m better in smaller groups) and this will allow the teachers more time to ask questions. The other teachers won’t feel it is a waste of their time; therefore, will hopefully pay more attention if they can apply the information to their own classrooms. The following ideas have been gathered from my Personal Learning Networks (PLN): Pinterest and colleagues (credit will be given where due). I also use Twitter and Facebook as part of my PLN. *These are just a few examples and this plan is a continuous work in progress.*

**Information Literacy in the Math Classroom**

* Real World Math Project: Designing a Dream Playground (source: Mr. Z in NC; Mebane, NC; TeachersPayTeachers via Pinterest)

“With this project, students apply their knowledge of numbers and operations in base ten, including writing numbers in different forms, addition and subtraction of decimals and estimation in order to design a dream playground for their local community.

Students will research existing playgrounds, brainstorm ideas of their own, create a budget, draw their design, and write checks for materials.”

* Problem-Based Learning: Design a Shopping Mall (source: www.glencoe.com)

“Students take the role of an architect and design a shopping mall. Students research the design of malls and the feasible sizes for various types of stores. The end product can be a brochure, poster, or webpage presenting the design to a panel of adults or students serving as a city-planning board.”

* Fractions in Everyday Life (source: Terra Shea DeSpain-Lyon; University of North Texas; [www.mathforum.org](http://www.mathforum.org))

Students will be able to take their knowledge of fractions and apply it to recipes. Students will be given a certain recipe (ex., brownies) and will have to half the recipe, double or triple the recipe. The students then can actually make the dessert.

**Information Literacy in the Science Classroom**

* Flat Scientist project (source: Kristi VanHoveln; Milford, IL; sister)

Students each research a different scientist. They then create Flat Scientists based on the Flat Stanley books. They pick a person to mail the Scientist to. That recipient is then to take pictures of the Scientist performing something science-related. For example, my mom received a Scientist from a boy. She had the Scientist learn about recycling. She took the Scientist from her own recycling bins and followed the material to the local recycling center. She took pictures along the way and then mailed the pictures and Scientist back to the student. (You could change this to a famous mathematician or person from history.)

* Create an Alien – A Space and Planet Project (source: Jennifer Maschari; OH; TeachersPayTeachers via Pinterest)

“This learning activity was used as a culminating project for our outer space and planet unit. It is cross-curricular encompassing both science and language arts (and a little bit of math!) Students research a planet and create a passport full of information. The students then apply their knowledge and create a 3D alien that could possibly live on the plant they have researched. You end the project with a Welcome to Earth! celebration where students "interview" the other aliens to learn about the different planets.”

* The Six Major Land Biomes: A Science Unit and Research Project (source: Tanya Rae Designs; Rib Lake, WI; TeachersPayTeachers via Pinterest)

“In this unit, students act as travel agents that have been hired by a new travel agency. Their task is to research a specific biome (this may be student-chosen, or assigned) in order to be able to persuade potential travelers to want to visit the biome. More instructions are given in the instruction letter.”

**Information Literacy in the Social Studies Classroom**

* Lapbooks (source: Tabitha Caro, guest blogger; Sunny Days in Second Grade blog)

“Lapbooks are file folders with informative minibooks and/or games pasted inside them. They are great for organizing information that students have researched, reinforcing skills taught in the classroom, as a portfolio assessment at the end of a unit.” (This could work for math and science as well.)

* Living Timeline (source: Cheryl Kestner; Quincy, IL; mother)

Each student gets to pick a famous person from history. They then research their person and later write a short 3-5 minute oral speech. There is a special day set aside for the parents to come to the school to view the presentations. The students line up around the school and are in costume to look like their selected person. The parents tour the school and hear the various presentations.

* The U.S. Constitution: Continuity and Change in the Governing of the United States (source: Library of Congress)

“This unit includes four lessons using primary sources to examine continuity and change in the governing of the United States. Lessons one and two are focused on a study of the Constitution and Bill of Rights and provide access to primary source documents from the Library of Congress. Lesson three investigates important issues which confronted the first Congress and has students examine current congressional debate over similar issues. Lesson four features broadsides from the Continental Congress calling for special days of thanksgiving and remembrance.”

**Other Resources:** The new JH/HS librarian (Vicki Eilers, CUSD3) gave me a few resources that I could incorporate.

* Homework Help from the Multnomah County Library <https://multcolib.org/homework-guides>
* History Channel “This Day in History” <http://www.history.com/this-day-in-history>
* Awesome Stories <http://www.awesomestories.com/>

**Evaluation:** I can gage each presentation by the amount of comments or questions asked. I would like each presentation to be as hands-on as possible. I can bring books and materials to the presentations. I would like the teachers to walk away from my presentations with something they can implement the next day in their classrooms. As stated earlier, it would be ideal if I could visit each classroom as a follow-up and help model the process. Since this isn’t likely to be possible, I will collaborate with the librarian and ask for her assistance. We can then reconvene and I can ask her how the plan is working in the classrooms and where I need to tweak my presentations. I understand that teachers are not going to learn the Big6™ model in one session and will likely not learn how to implement information literacy into their classrooms in one session. This will be an ongoing, year-long process.

Once teachers start to incorporate the various ideas into their classrooms, I’d like to see the students’ work on display either in the library or in the hallways. That way parents, other students, teachers, administration, and visitors can see the work that is being done in our school.

I feel my presentations will be more receptive in the junior high. Teachers in that building seem willing to improve and modify their teaching. The high school teachers aren’t as receptive. I also feel my plan will succeed better in the junior high because the principal will be supportive and will make teachers accountable. The high school principal is finishing his first year as principal and he doesn’t always provide accountability.

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